

Regional Director, Fish and Wildlife Service
Boston, Mass.

May 9, 1950

Refuge Manager, Moosehorn National Wildlife
Refuge, Calais, Maine.

MANAGEMENT - Water Management Plan, Moosehorn Refuge.

Reference is made to correspondence ^{having} to do with setting the water table in Barn Meadow Marsh area of this Refuge. Please be advised that in conformity with instructions Mr. Howard Mendall and I got together soon after the ice was out of Barn Meadow and made a survey of the marsh with the water table at the 4'2" mark. As expected, about one-half of the vegetative sod covering of the marsh was floating which would make safe nesting sites for waterfowl with the water at almost any level.

An examination of the upper sections of the marsh, where we had used our bulldozer to push up and create nesting sites, showed too many in a semi-flooded condition. Therefore, in order to get as many nesting sites as possible, it was necessary to lower the water table. To raise the water level to eliminate flood water backing in from the St. Croix River would eliminate too many nesting sites with the marsh in its present state of development, therefore, this idea of management was abandoned.

Immediately after we made our first survey it started to rain and it rained hard for days. The water backed in from the St. Croix River with the result that U. S. Highway No. 1 crossing the marsh was fourteen inches under water. The water gauge at Barn Meadow was completely submerged. The one at Magalloway registered 12'6" on the morning of April 23rd. Everything looked like a lake with the exception of Barn Meadow and there about half the sod covering of the marsh was still floating. At the time the water was the very highest, a black duck was laying her eggs in a nest built on the floating sod in the center of the marsh. We found ten eggs in the nest while making our survey on May 3rd.

Mr. Mendall and I have completed our survey for the time being and have agreed that the water table for this year, at least, should be about 3'5" and it still may be necessary to change this level one way or another. We do not consider it advisable to disturb the nesting ducks too much and for this reason another check will be made in about ten days.

After the nesting season the water should be drained to the lowest level possible and the development of the area completed. After which the area should be flooded to the 4'3" or 4'6" level so as to improve the muskrat habitat and this level maintained until the nesting period the following spring.

The floating sod in the center of the marsh will contain plenty of good nesting sites with the water at almost any height. The only thing now necessary is to set the water table so as to provide the greatest possible numbers of nesting sites in areas where bulldozing has been done.

B E. Smith, Refuge Mgr.

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DEVELOPMENT - Barn Meadow Marsh - Moosehorn Refuge.

May 9, 1950

I am sorry that you were unable to come up here this spring, but will look forward to a get-together with you later.

As you know, the development of Barn Meadow Marsh isn't completed and won't be until this fall. It won't take but a very few days with the bulldozer to finish the work. An aerial photograph at this time would not show the completed job, only the area in its present stage of development. It seems to me that the whole story in the Journal of Wildlife Management should show the completed marsh. This may not be at all necessary as an aerial photograph would show the predatory control ditch and the built up nesting sites in the upper section of the marsh, also the floating sod for nest sites. I have an aerial photo taken the next day after I received your letter. The water table was too high to show up the area in good shape, therefore, I am taking another next Monday, May the 15th. and will send it to you as soon as it is developed.

I have already begun to receive letters requesting detailed information regarding the development. What would you suggest as a means of handling it before the whole story is given in the Journal of Wildlife Management? I certainly cannot type up a copy of that whole report.

I am enclosing a copy of my report on the setting of the water table for Barn Meadow. Howard Mendall was very cooperative regarding this matter and I am glad that he was that way.

I spoke to Dr. Cottam regarding my plan for reconditioning coastal areas. The plan I mean has to do with conditioning our coastal barrierwater areas, such as Barnagat Bay, New Jersey. If he doesn't dig it out, you do so, because it goes with the Barn Meadow plan very nicely.

With very best personal regards to you and the family,

B. E. Smith
Refuge Manager